

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: LUMARK

Report Number: P967907

Luminaire Tested: **NAV-SB5A-835-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P967907
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5A-835-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 80 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21054.5 lumens
Efficiency: N/A
Efficacy: 148.6 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G4

Input Watts (W): 141.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



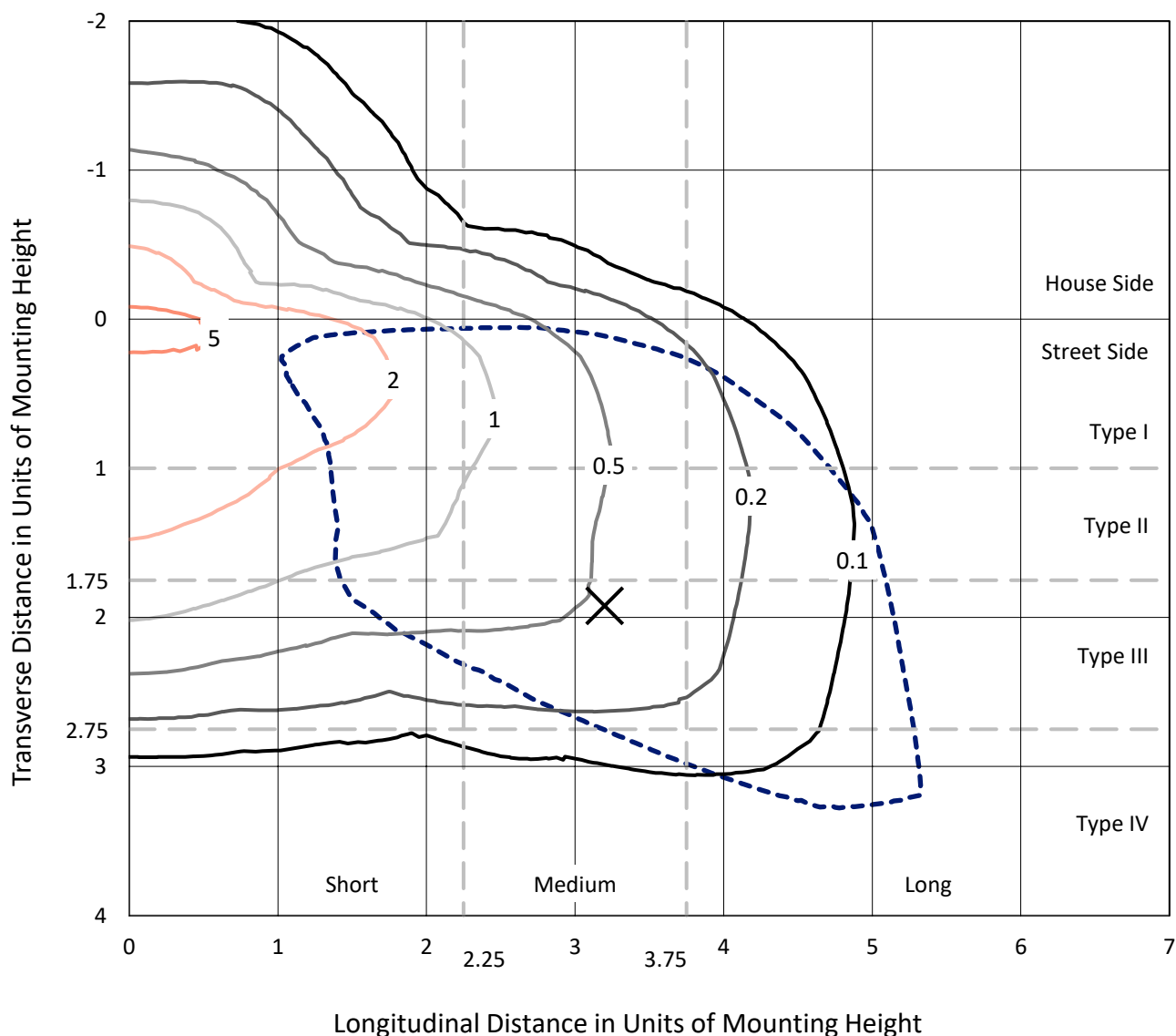
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

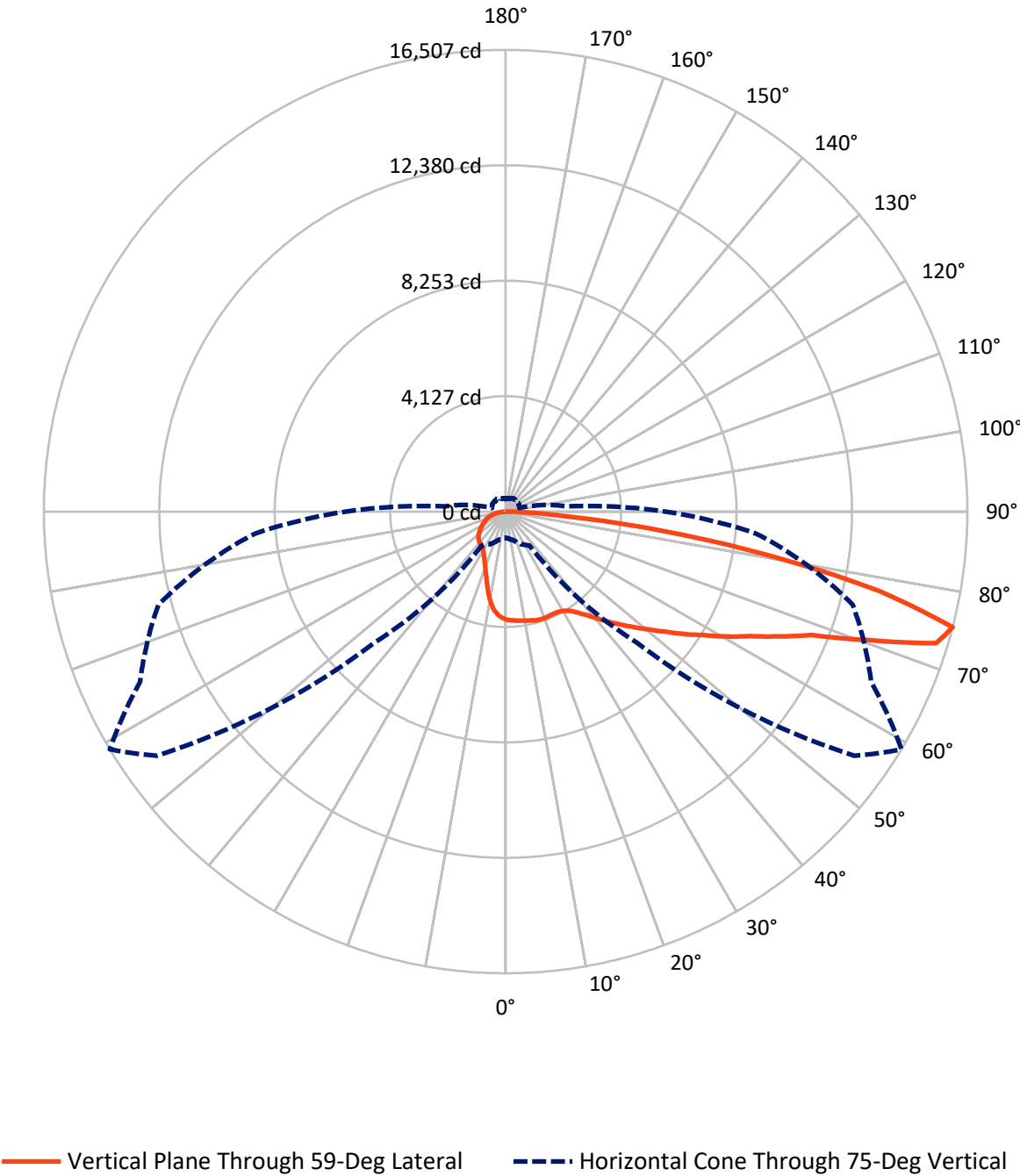
--- 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6.2 fc
Type IV - Medium - N/A

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Luminous Intensity Polar Plot



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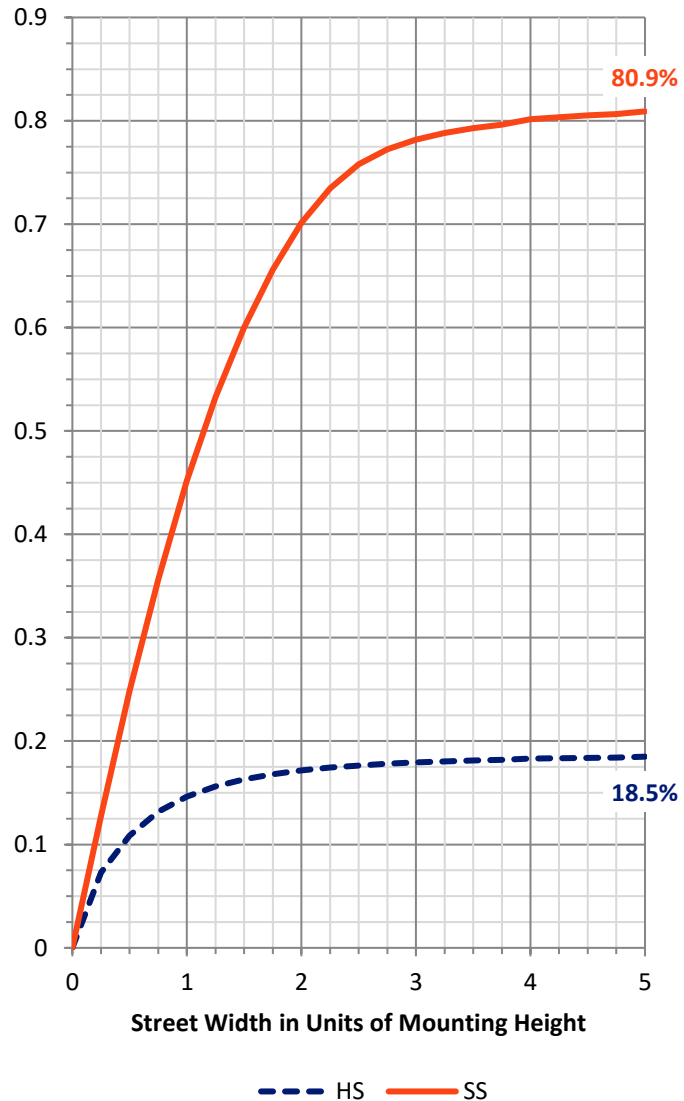
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3948.9	0.0	3948.9
	% Fixture	18.8	0.0	18.8
Street Side	Lumens	17105.6	0.0	17105.6
	% Fixture	81.2	0.0	81.2
Total	Lumens	21054.5	0.0	21054.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	346.5	1.6
10°-20°	885.7	4.2
20°-30°	1345.3	6.4
30°-40°	1999.8	9.5
40°-50°	2974.0	14.1
50°-60°	4036.9	19.2
60°-70°	4928.4	23.4
70°-80°	3867.8	18.4
80°-90°	670.0	3.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	21054.5	100.0
0°-180°	21054.5	100.0

Coefficient of Utilization



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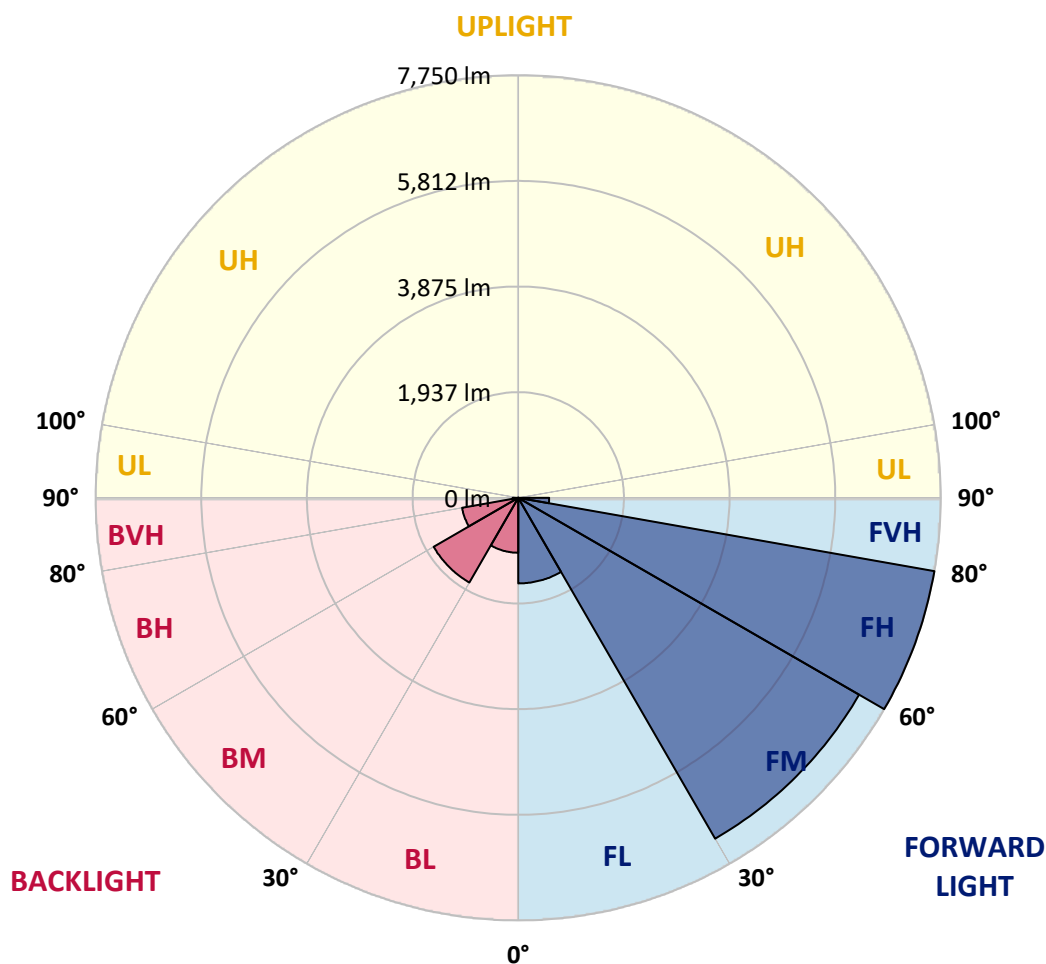
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1569.8	7.5			
FM	(30°-60°)	7218.4	34.3			
FH	(60°-80°)	7750.0	36.8			G4/12000
FVH	(80°-90°)	567.4	2.7			G4/750
BL	(0°-30°)	1007.7	4.8	B3/2500		
BM	(30°-60°)	1792.4	8.5	B2/2500		
BH	(60°-80°)	1046.2	5.0	B3/2500		G3/2500
BVH	(80°-90°)	102.6	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Medium



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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	59°	65°	75°	85°
0°	3864.6	3864.6	3864.6	3864.6	3864.6	3864.6	3864.6	3864.6	3864.6	3864.6	3864.6
2.5°	3897.4	3883.7	3897.4	3891.7	3889.5	3884.9	3886.0	3894.0	3889.5	3895.1	3875.8
5°	3871.3	3863.3	3877.0	3873.6	3888.3	3890.6	3905.2	3914.4	3920.0	3921.1	3906.4
7.5°	3828.3	3820.4	3839.5	3855.4	3887.2	3896.2	3926.8	3941.5	3949.4	3963.1	3941.5
10°	3670.8	3667.4	3715.0	3775.1	3849.8	3896.2	3942.7	3967.6	3980.1	4016.3	3991.3
12.5°	3392.2	3396.7	3459.1	3574.6	3724.0	3873.6	3960.8	3997.0	4016.3	4061.6	4050.3
15°	3126.0	3124.9	3192.9	3316.3	3525.9	3773.9	3969.8	4032.1	4064.9	4131.8	4122.8
17.5°	2972.0	2967.5	3015.0	3109.0	3303.9	3621.0	3947.2	4051.4	4121.6	4205.5	4197.5
20°	2943.7	2934.7	2959.6	3006.0	3144.2	3453.3	3888.3	4051.4	4166.9	4275.7	4271.1
22.5°	3046.7	3032.1	3021.8	3016.2	3077.4	3315.2	3821.5	4037.8	4233.8	4376.4	4368.5
25°	3254.1	3231.4	3179.2	3128.3	3110.2	3252.9	3762.6	4034.4	4333.4	4512.4	4482.9
27.5°	3589.2	3561.0	3455.7	3333.3	3223.4	3284.6	3736.5	4054.8	4443.3	4656.2	4597.3
30°	4005.0	3974.3	3841.9	3653.8	3456.8	3402.4	3769.3	4114.9	4583.7	4847.6	4732.1
32.5°	4377.6	4343.6	4230.4	4038.9	3772.7	3606.3	3873.6	4229.3	4804.6	5113.8	4934.9
35°	4708.3	4668.7	4566.8	4390.1	4160.2	3892.8	4061.6	4432.0	5118.3	5546.5	5210.1
37.5°	5032.2	4985.8	4874.8	4687.9	4527.1	4274.6	4321.0	4692.4	5535.1	6072.0	5574.8
40°	5394.7	5327.8	5193.1	5008.5	4852.1	4721.9	4661.9	5011.8	5958.7	6658.7	6030.1
42.5°	5745.8	5682.4	5521.6	5364.1	5168.2	5130.7	5057.1	5385.7	6421.9	7303.1	6492.2
45°	6124.1	6048.2	5853.4	5654.1	5530.6	5402.6	5440.0	5759.4	6876.1	7960.0	6977.0
47.5°	6478.6	6393.6	6163.7	5941.7	5873.8	5631.5	5791.1	6170.5	7348.4	8626.1	7457.2
50°	6670.0	6586.2	6394.8	6194.3	6141.1	5913.4	6171.6	6622.4	7843.4	9289.8	7918.1
52.5°	6829.7	6739.1	6488.8	6377.8	6362.0	6220.4	6640.6	7138.9	8338.4	9876.5	8363.3
55°	6999.6	6898.8	6579.4	6479.7	6552.2	6564.7	7196.7	7724.5	8861.6	10448.4	8783.5
57.5°	7195.6	7067.6	6666.6	6565.8	6737.9	6968.0	7835.5	8331.6	9375.9	10978.6	9157.2
60°	7380.2	7251.1	6834.3	6702.9	6938.4	7435.7	8568.3	9066.6	9958.0	11450.8	9510.7
62.5°	7416.4	7310.0	6968.0	6966.7	7210.3	7981.6	9435.8	9808.5	10466.6	11917.5	9827.8
65°	6789.0	6722.2	6519.4	6956.6	7599.9	8767.6	10402.0	10757.7	11113.3	12325.2	10106.4
67.5°	5167.0	5176.0	5161.4	6005.2	7285.1	9896.9	11800.8	11773.7	11911.8	12782.8	10426.9
70°	2362.6	2415.9	2762.5	4145.4	5836.5	10027.2	14113.6	13761.3	12914.2	13375.1	10704.4
72.5°	1276.4	1317.2	1458.8	2008.2	3508.9	8914.8	15842.0	16092.3	14247.3	13773.8	10399.8
75°	936.6	959.3	1057.9	1276.4	1473.5	6625.8	15222.5	16506.8	14413.8	12844.0	8980.5
77.5°	701.1	711.2	791.7	1011.5	754.3	3493.0	12163.3	13670.7	12338.8	10552.7	6633.8
80°	508.5	519.9	579.9	758.8	528.9	1277.6	8352.0	9595.5	8450.5	6726.7	3306.1
82.5°	351.1	355.7	381.7	516.5	369.2	496.1	4738.9	5626.8	4717.4	2360.4	892.5
85°	211.8	217.5	228.8	301.2	209.5	235.5	2045.5	2115.7	1410.1	564.1	277.5
87.5°	87.2	92.9	101.9	126.9	82.7	65.7	337.5	423.6	263.9	165.3	86.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3864.6	3864.6	3864.6	3864.6	3864.6	3864.6	3864.6	3864.6	3864.6	3864.6	3864.6
2.5°	3870.2	3862.2	3840.7	3811.3	3784.1	3750.1	3735.4	3722.9	3711.6	3690.1	3679.9
5°	3894.0	3872.4	3814.6	3739.9	3654.9	3562.1	3471.5	3409.2	3356.0	3316.3	3283.5
7.5°	3930.2	3889.5	3784.1	3631.2	3436.4	3237.1	3057.0	2928.9	2832.7	2797.5	2736.4
10°	3967.6	3918.9	3735.4	3465.8	3129.4	2822.5	2583.5	2452.1	2375.1	2350.2	2311.7
12.5°	4011.7	3940.4	3659.6	3235.9	2786.3	2449.9	2241.5	2164.5	2124.8	2111.2	2114.6
15°	4076.3	3958.6	3545.1	2948.2	2459.0	2178.0	2043.2	1990.0	1969.6	1968.5	1973.0
17.5°	4125.0	3961.9	3367.3	2640.2	2207.4	2013.8	1902.8	1882.4	1896.0	1916.4	1924.3
20°	4179.3	3931.3	3133.9	2359.2	2030.8	1870.0	1823.5	1837.1	1870.0	1899.4	1909.6
22.5°	4217.9	3875.8	2852.0	2140.6	1877.9	1787.3	1785.0	1813.3	1831.5	1846.1	1854.1
25°	4251.9	3781.8	2553.0	1957.1	1752.1	1737.5	1762.4	1753.3	1740.9	1753.3	1761.3
27.5°	4276.8	3633.4	2285.6	1796.3	1663.8	1703.4	1688.8	1668.4	1667.3	1674.0	1685.3
30°	4268.8	3435.3	2065.9	1643.5	1601.6	1640.0	1604.9	1601.6	1598.2	1601.6	1614.0
32.5°	4268.8	3209.9	1897.2	1538.1	1561.9	1547.1	1543.8	1535.9	1522.2	1521.1	1535.9
35°	4292.6	2984.5	1752.1	1481.4	1529.0	1493.9	1496.2	1476.9	1448.6	1435.0	1448.6
37.5°	4341.4	2803.3	1608.3	1454.3	1471.3	1470.2	1461.0	1428.2	1378.4	1335.4	1350.1
40°	4459.2	2750.0	1509.8	1441.9	1444.1	1457.7	1433.9	1370.4	1257.2	1186.9	1196.1
42.5°	4643.8	2839.5	1488.3	1411.2	1426.0	1439.6	1393.1	1245.9	1165.4	1123.6	1123.6
45°	4878.2	2995.8	1534.7	1367.0	1382.9	1406.7	1268.5	1198.3	1162.0	1163.2	1168.9
47.5°	5174.9	3160.0	1620.8	1328.6	1320.6	1334.2	1185.8	1142.8	1093.0	1105.5	1137.1
50°	5518.2	3326.5	1702.3	1276.4	1251.5	1207.3	1132.6	1091.8	1028.4	999.0	1006.9
52.5°	5889.6	3487.4	1735.2	1213.1	1176.8	1125.9	1096.3	1046.5	969.5	920.9	919.7
55°	6241.8	3633.4	1698.9	1137.1	1102.1	1062.4	1057.9	1027.3	944.6	876.7	876.7
57.5°	6574.9	3755.8	1608.3	1060.2	1026.1	1002.3	1033.0	1018.2	914.0	826.8	822.3
60°	6856.9	3839.5	1476.9	982.0	958.2	945.8	992.2	987.7	870.9	773.6	770.2
62.5°	7081.2	3872.4	1332.0	907.2	901.6	878.9	935.5	935.5	816.6	721.5	718.1
65°	7256.7	3840.7	1184.7	833.6	844.9	811.0	866.4	859.7	758.8	675.1	670.6
67.5°	7411.9	3736.5	1021.6	761.2	787.2	744.2	794.0	778.1	695.5	628.6	624.1
70°	7481.0	3494.1	835.9	688.6	720.4	678.4	721.5	692.1	624.1	578.8	569.7
72.5°	6926.0	2904.0	658.0	612.7	639.9	606.0	643.3	609.4	547.0	526.6	509.6
75°	5730.0	2179.1	506.2	530.0	550.4	524.4	549.3	524.4	467.8	482.5	440.5
77.5°	4161.3	1471.3	387.3	442.9	451.9	438.3	459.8	431.5	380.6	377.2	360.2
80°	2069.3	861.9	303.5	349.9	346.6	337.5	362.4	348.8	305.8	323.9	320.5
82.5°	599.1	369.2	220.9	245.8	239.0	241.3	259.3	266.2	398.7	395.2	404.4
85°	188.0	144.9	132.5	137.0	130.3	133.7	152.9	303.5	280.8	164.2	177.8
87.5°	48.7	49.8	32.8	35.2	36.3	43.0	48.7	184.6	88.4	57.8	61.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)